

## REMARKS

The Office Action dated October 19, 2005, has been carefully considered. Claims 1-21, 29-31 and 39-46 are presented for examination in this application, of which Claims 1, 9, 10, 11, 19-21, 29-31, 39 and 40 are independent. Claims 1, 8-11, 19-21, 29-31 and 39 and 42 have been amended to clarify the field to which they apply. Claims 22-28, 32-38 and 47-52 have been cancelled without prejudice or disclaimer of subject matter, and will not be mentioned further. Favorable reconsideration is requested.

In the Office Action, Claims 1-6, 9, 11-16, 19, 21, 29, 31 and 39 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,563,796 (Saito). In addition, Claims 7 and 17 were rejected over 35 U.S.C. § 103(a) as being obvious from *Saito* in view of U.S. Patent 6,621,805 (Kondylis), Claims 8 and 18, as being obvious from *Saito* in view of U.S. Patent 5,867,495 (Elliot et al.), and Claims 10, 20, 30 and 40-46, as being obvious from *Saito* in view of U.S. Patent 6,028,838 (Yamamura et al.).

The present invention is directed to a test of service, specifically the quality of service in layer 7 (application layer) in the Open Systems Interconnection (“OSI”) reference model, i.e., the quality of various services provided to other programs via data communication.

Independent Claim 1 is directed to a service management apparatus for managing service information of a service provided by an apparatus and transferring the managed service information to an external apparatus in response to a request from the external apparatus. Test means execute a process of a trial use of the service provided by the apparatus. In the trial use, the test means send data to the service by using an operation of the service. It should be noted that the data transmission by the test means is performed in the application layer (layer 7 of the OSI model). This is clear from the words “by using

an operation of the service”. For example, the process of the trial use is executed by causing the service to open a file, obtain data, and transmit the data, and by notifying the service that the data transmission has been completed.<sup>1</sup> Evaluation means evaluate the quality of the service, based on a result of the trial use, and renewal means renew the managed service information based on the evaluated quality.

Independent Claim 9, similarly, is directed to an apparatus connected to a service management apparatus for managing service information of a service on a network system and transferring the managed service information to an external apparatus in response to a request from the external apparatus. Test means execute a process of a trial use of a service of another apparatus belonging to the same group as does the subject apparatus. In the trial use, an operation of the service of the other apparatus is executed. Evaluation means evaluate the quality of the service, based on a result of the trial use of the service. Deletion means instruct the service management apparatus to delete the service information related to the subject apparatus and to the other apparatus from the service management apparatus, if the evaluated quality does not meet a predetermined reference.

Independent Claim 10 is similar to Claim 9 except that it does not recite deletion means, does recite substitution means that instruct the service management apparatus to substitute the service information of the service provided by the other apparatus with the service information provided by the subject apparatus, if the evaluated quality does not meet a predetermined reference.

*Saito* relates to a QoS evaluation method, in which routers or switches provided between network nodes analyze a protocol in layer 2 (data link layer), layer 3

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<sup>1/</sup> It is to be understood that the claim scope is not limited by this or any other example, or by the details of any particular embodiment that may be referred to.

(network layer) and layer 4 (transport layer) in the OSI model. *Saito*'s QoS corresponds to ATM communication quality in those layers, i.e., performance or quality of communication traffic.

The QoS evaluation apparatus of *Saito* evaluates the quality (cell loss caused by buffer overflow) of the network when the traffic is increased by a certain amount (column 11, lines 16-21). Also, in the *Saito* system, in evaluating the quality of service by reproducing the traffic in lines 1008, 1009 and simulating the system 1001, it is necessary for CPU 1021 (estimation section) to estimate the packet arrival times from the timestamps and packet length information obtained from the packet arrival detection section 1020 (column 14, lines 50-55).

Even if the *Saito* apparatus is deemed to monitor a specific portion by a monitoring program, it is clear from col. 14, lines 50-55, that the monitoring program monitors how many network packets pass in a unit time, and Applicant submits that nothing has been found, or pointed out, in *Saito* that would teach or suggest test means as recited in each of Claims 1, 9 and 10, or evaluation means for evaluating the quality of the service based on the result of the trial use, as recited in each of those three claims. For at least those reasons, Applicant submits that those claims are clearly allowable over *Saito*.

Each of the other independent claims corresponds to one or another of the apparatus claims discussed above, and is deemed allowable by virtue of at least the reasons given above with regard to the apparatus claims.

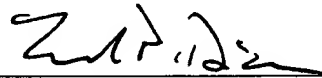
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and allowance of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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